Industrial DG
Increasing the Use of DG in the Semiconductor Industry

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Subcontract # 400006029

Contractor: **SRP** Phoenix, AZ

Technical Project Monitor:
Tom Rizy, Oak Ridge National Laboratory

Investigation Team

SRP Principal Investigators

Barry Cummings Robert Hess Chris Janick
Kris Koellner Tom LaRose Rao Thallam

Industry Support Team – Key players

Phil Sarikas, Intel Corporation – lead

Phil Naughton, Motorola

Dan Smith, AMD

Purpose:

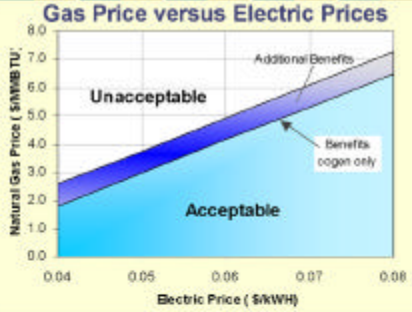
Encourage use of distributed generation by using multi-purpose projects benefiting:

- **Semiconductor Wafer Plant Owner**
- **Energy suppliers**
- **Energy Distribution Companies**

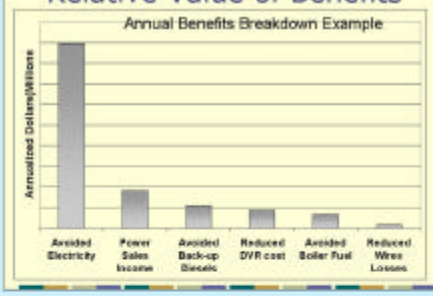
Status

- **Final Report Draft Complete**
- **Peer review recommended modifications in-process**
- **Final Report Scheduled Prior to February 15, 2002**

Gas Price versus Electric Prices



Relative Value of Benefits



Conclusions

- New FABs only (with rare exception) with fuel prices and market conditions key factors
- Except fuel prices, risk will *not* be a major deterrent
- Shared stakeholder net benefits significant only for marginally acceptable energy price conditions
- Combustion Turbine or Natural Gas Reciprocating Engines the only expected acceptable DER alternative through 2010
- DG Semiconductor market size(less than 10 per year) and DG impact insignificant on net savings, fuel use, environmental impact and equipment sales

Environmental, Legal, and Institutional Conclusions

- Amount of emission levels unlikely a 'major source' issue.
- Public process as part of a new-site, public process likely to be successful
- Inspections and existing review processes will be challenging for at least the next 3-5 years